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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,739	10/28/2003	Rex Miller	0275M-000650	6312
27572	7590	07/28/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			SAETHER, FLEMMING	
P.O. BOX 828			ART UNIT	PAPER NUMBER
BLOOMFIELD HILLS, MI 48303			3677	

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/696,739	Applicant(s) MILLER ET AL.	
	Examiner Flemming Saether	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 8,9,13,20,23,42 and 48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6,7,10,12,15-17,19,22,24,27-30,32-34,38-41,44-46 and 49-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1-3,6-10,12,13,15-17,19,20,22-24,27-30,32-34,38-42,44-46 and 48-54.

Election/Restriction

Claims 8, 9, 13, 20, 23, 42, and 48 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) in view of election in the paper filed 2-24-2005.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 6, 7, 10, 12, 15-17, 19, 22, 24, 27-30, 32-34, 38-41, 44-46 and 49-54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In each of the independent claims, it is unclear what is intended by the countersink being limited to being "flat" since the countersink is in fact conical. Indeed, by definition, a conical surface is curved thus cannot also be flat.

In claim 24, "said body" in line 1-2 is indefinite because it presumably refers to the "automotive body" where its diameter is unclear and as such the entire claim is indefinite since the limitations intended of the body is critical to the claim. Furthermore, claim 30 refers to "an exterior surface" which is presumably the diameter intended by diameter in claim 24 thus making "an exterior surface" a double inclusion.

Claim 49, is indefinite because the conical surface cannot have a diameter greater than the nut.

The claims were examined as best understood.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6, 7, 10, 12, 15-17, 19, 22, 24, 27-30, 32-34, 38-41, 44-46, and 49-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutter (US 5,704,747) in view of Peterson (US 5,096,350). As best seen in Fig.8, Hutter discloses fastener assembly including a nut (18) wherein the nut is shown to have a transition portion including a conical countersink and concave radius interface with a thickness greater than that of both a threaded cylindrical body and transverse base and spanning substantially the entire transition portion. Hutter further discloses the nut received within a retaining means (20) having a planer surface which allows the nut limited movement relative thereto. The fastener assembly is described as intended for use with automobile (column 1, line 17). The formation of the body by heat treating or cold working is a product-by-process limitation wherein it is only the final product considered for patentability. Hutter does not disclose the configuration of the retaining means as formed pair of bent over flanges including open ends. Peterson discloses a similar type fastener assembly as Hutter but, Peterson discloses the retaining means formed as pair of flanges (34, 36) bent over to cover a nut base portion (see Fig. 2) and configured to include open ends. At the time the invention was made, it would have been obvious for one of ordinary skill in the art to replace the retaining means of Hutter with one as

disclosed in Peterson because the retaining means disclosed in Peterson is of a simplified structure and Hutter does not have any criticality to the dome shaped retaining means and. The cage as disclosed in Peterson is only a single piece whereas the Hutter is two separate pieces. Lastly, the specific material and its strength properties would have been recognized depending upon the particular application of the assembly.

Since Hutter shows the shape of the countersink shape to be the same as that disclosed, it also inherently includes the "flat surface".

In regards to claim 3, the welding of a cage nut is well known and would have been recognized as a substitute for the adhesive of Hutter depending upon the particular application. In other words, the skilled artisan would have recognized to weld the cage onto the substrate if the substrate were metal rather than composite. There is nothing which would preclude the cage from being welded onto a metal substrate.

In regards to claims 24, 49 and 54, in order to satisfy the requirement that the outer diameter of the conical portion is greater than the first diameter (presuming the first diameter is intended to be that of the nut body) the first diameter is read as the inner diameter of the nut thus making the conical portion's diameter greater in relation thereto.

Response to Remarks

Applicant argues that each of Hutter and Peterson lack certain features of the claims. The examiner notes that Hutter discloses the features of the nut as claimed and

Peterson discloses the features of the cage as claimed including the base portion of the nut being enclosed within the cage so as to have openings aligned with the nut and allowing relative movement as emphasized by applicant (see Peterson's Fig. 2).

Applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant further argues that it is improper to combine Hutter and Peterson because Hutter relies on an adhesive to secure the cage onto a substrate whereas Peterson uses a weld. In response, it should be recognized that only claim 3 is specific to a weld. Otherwise, there is requirement as to how the cage is secured and as such the combination could simply also be glued to the substrate. There is nothing in the structure of the nut or cage which would limit how the cage is secured to the substrate. The only thing which limits how the cage is secured to the substrate is the substrate onto which is secured and as discussed in the above rejection, both a glue and welding techniques as well known for securing cage nuts onto a substrate depending upon the material of the substrate. Therefore, in conclusion, the skilled artisan would not be lead away for the combination based upon how the cage is secured to the substrate since both welding and gluing are well known alternatives depending upon the particular application of the cage nut.


In regards to claims 24, 49 and 54, though indefinite and currently not defining over the art as applied above. If the examiner assumes that by the "first diameter" the applicant intends to refer to the external diameter of the cylindrical body portion of the nut and is arguing that it is that diameter which is greater than the outer diameter of the countersink; in response thereto, it appears that external diameter of the cylindrical body portion of the nut being greater than the outer diameter of the countersink may be new matter, applicant should also consider the reference to Husain (US 4,186,787) since it shows the outer diameter of the countersink larger than a cylindrical portion of the nut which is presumably the feature applicant is relying for claims 24, 49 and 54.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 571-272-7071. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Flemming Saether
Primary Examiner
Art Unit 3677